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SENSITIVE
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E.O. 12958: N/A
TAGS: [PARM](#) [ETTC](#)
SUBJECT: AUSTRALIA GROUP: CLARIFYING NOMINAL SIZE AND
ROTOR DEFINITIONS (#2 OF 4)

11. (U) This is an action request. Please see paragraph 2.

ACTION REQUEST

12. (SBU) Drawing on the background below, Department requests AG country Embassies provide the non-paper in paragraph 6 to appropriate host government officials and elicit a response. (Note: This is the second of four cables conveying U.S. proposals. End Note) In delivering this non-paper, posts should indicate that the U.S. is sharing this non-paper as part of preparations for the September 21-25 AG plenary and that we would appreciate hearing their views or any suggestions they may have on the non-paper. Also, request Embassy Canberra provide the non-paper to the AG chair for circulation as an official AG document.

REPORTING DEADLINE

13. (U) Embassy should report results of this demarche by cable before September 7. Please contact ISN/CB Andrew Souza at 202-647-4838 or via e-mail for further information.

BACKGROUND

14. (SBU) The manufacturing process for many chemical warfare agents can be extremely caustic, requiring equipment that is made of specialized corrosion and heat-resistant materials. To help limit the proliferation of chemical weapons, the 40-country Australia Group (AG) has agreed to require government permission for exports of this specialized chemical production equipment. For this year's AG plenary session, the United States will present three proposals to refine this control list for dual-use chemical equipment. One proposal, detailed herein, is to clarify the meaning of two terms that are currently undefined, 'nominal size' and 'rotor.'

15. (SBU) AG-controlled valves have a nominal size of greater than 1 cm. U.S. producers of AG-controlled valves have encountered some difficulty determining nominal size when a valve's inlet and outlet ports are of different diameters. To resolve this issue, the United States is proposing that 'nominal size' be defined as the smallest port on a valve. The term 'rotor' has also caused some confusion for U.S. manufacturers of AG-controlled pumps, as the term is used to describe different components in centrifugal and vacuum pump designs. While vacuum pump rotors do come in contact with

the chemical being pumped, centrifugal pump rotors do not. Therefore, AG countries are only concerned about the characteristics of vacuum pump rotors because they could help determine whether a particular design is appropriate for chemical warfare agent production. The United States believes adding a parenthetical indicating that the term 'rotors' applies to vacuum pump rotors only should eliminate this confusion.

NON-PAPER

16. (SBU) Begin text of non-paper:

AG-In-Confidence

AUSTRALIA GROUP

Australia Group Doc
AG/Jul09/CL/USA/xx

Clarifying the Terms 'Nominal Size' and 'Rotor'

Issue

Should the Australia Group (AG) provide exporters with

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explicit definitions of the terms 'nominal size' and 'rotor' used in the Control List for Dual-Use Chemical Manufacturing Facilities and Equipment and Related Technology and Software?

Background

At the April 2008 AG Plenary, the United States tabled a non-paper on clarifications to controls on dual-use chemical equipment. One of the issues discussed in the paper was the absence of any definitions for the terms 'nominal size' and 'rotor' used in the control list for dual-use chemical equipment. Based on our discussions with AG members, during the 2008 plenary, the United States believes we should consider clarifying the control list to address this issue.

Discussion

Nominal Size

From our experience, exporters sometimes ask for a definition of 'nominal size' in the control for valves. This term is generally understood in the U.S. valve industry to mean the size of the inlet and outlet ports, or more specifically, the size of the pipes or tubes which connect the valve to the process. To provide greater clarity, we recommend adding a technical note to the control for valves defining the 'nominal size' as the smaller of the inlet and outlet port diameters.

Rotor

The term 'rotor' is identified in the control for pumps, but it is not defined. The definition most often used in U.S. industry is to reference a vacuum pump part. It is also used by some to refer to a shaft attached to an impeller in a centrifugal pump or to a shaft with impeller and bearings attached. In order to clarify the intent of the control, we recommend adding a technical note to the control for pumps indicated that the term 'rotors' refers to vacuum pumps only.

Recommendation

The United States recommends that the following technical notes be added to entries 6 (valves) and 8 (pumps) on the Control List for Chemical Equipment Manufacturing Facilities and Equipment and Related Technology and Software:

¶6. Valves

Valves with nominal sizes greater than 1.0 cm (3/8") and casings (valve bodies) or preformed casing liners designed for such valves, in which all surfaces that come in direct contact with the chemical(s) being produced, processed, or contained are made from the following materials:

- a. nickel or alloys with more than 40% nickel by weight;
- b. alloys with more than 25% nickel and 20% chromium by weight;
- c. fluoropolymers;
- d. glass or glass-lined (including vitrified or enamelled coating);
- e. tantalum or tantalum alloys;
- f. titanium or titanium alloys;
- g. zirconium or zirconium alloys;
- h. niobium (columbium) or niobium alloys;
- i. ceramic materials as follows:
 - ¶1. silicon carbide with a purity of 80% or more by weight;
 - ¶2. aluminum oxide (alumina) with a purity of 99.9% or more by weight;
 - ¶3. zirconium oxide (zirconia).

Technical note: The 'nominal size' is defined as the smaller of the inlet and outlet port diameters.

¶8. Pumps

Multiple seal and seal-less pumps with manufacturer's specified maximum flow-rate greater than 0.6 m³/h, or vacuum pumps with manufacturer's specified maximum flow-rate greater than 5 m³/h (under standard temperature (273 K (0°C)) and pressure (101.3 kPa) conditions), and casings (pump bodies), preformed casing liners, impellers, rotors or jet pump nozzles designed for such pumps, in which all surfaces that come into contact with the chemical(s) being processed are made from any of the following materials:

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- a. nickel or alloys with more than 40% nickel by weight;
- b. alloys with more than 25% nickel and 20% chromium by weight;
- c. fluoropolymers;
- d. glass or glass-lined (including vitrified or enamelled coating);
- e. graphite or carbon-graphite;
- f. tantalum or tantalum alloys;
- g. titanium or titanium alloys;
- h. zirconium or zirconium alloys;
- i. ceramics;
- j. ferrosilicon; or
- h. niobium (columbium) or niobium alloys;

Technical note: The control term rotors, refers to vacuum pump rotors only.

End non-paper.

¶7. (U) Please begin all responses with AUSTRALIA GROUP and slug for ISN.

¶8. (U) Department thanks posts for their support.
CLINTON